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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,797	11/18/2003	Steve Golden	P0021729.02	5178
77218	7590	11/09/2009		
Medtronic CardioVascular Mounds View Facility South 8200 Coral Sea Street N.E. Mounds View, MN 55112			EXAMINER WOO, JULLAN W	
			ART UNIT 3773	PAPER NUMBER
			NOTIFICATION DATE 11/09/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rs.vasciplegal@medtronic.com

Office Action Summary

Application No.

10/715,797

Applicant(s)

GOLDEN ET AL.

Examiner

Julian W. Woo

Art Unit

3773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64, 66-81 and 123-141 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 76-81 is/are allowed.
- 6) ☒ Claim(s) 64, 66-68, 71, 74, 75 and 123-141 is/are rejected.
- 7) ☒ Claim(s) 69, 70, 72, and 73 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on July 20, 2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/(Jackie) Tan-Uyen T. Ho/
Supervisory Patent Examiner, Art Unit 3773.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. It is not certain how a "method for performing anastomosis" includes a step occurring "prior to said anastomosing."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 64, 123, 124, 125, and 127-131 are rejected under 35 U.S.C. 102(e) as being anticipated by LaFontaine et al. (6,443,158). LaFontaine et al. disclose, at least in figures 3, 5A-6E and 14A and col. 3, line 66 to col. 6, line 14; col. 7, lines 27-61; and col. 11, lines 56-67; a method for performing anastomosis, where method includes delivering a tubular member (56) or cannula into the interior of a vessel (16) having a vessel wall, passing or introducing the first end of the tubular member or cannula or positioning a piercing end of a cannula (i.e., the end possessing cutting needle 62 that allows piercing or penetration of tissue) from the interior through the vessel wall at a first vessel wall location, attaching a graft (86 or 214 and 216) to the vessel wall adjacent to the first end of the tubular member or cannula (i.e., the graft is "inserted concurrently" with the cannula and is engaged with the vessel wall as the cannula is moved into and along the vessel; see col. 7, lines 27-29), and removing the tubular member or cannula,

where the tubular member or cannula is passed through the vessel was at a second location (i.e., in a femoral artery) to deliver the first end of the tubular member or cannula into the interior of the vessel, where the tubular member or cannula is delivered endovascularly, and where the tubular member or cannula forms an area of hemostasis (at contact with sides of the incisions).

6. Claims 66, 67, 71, 74, 126, 132, 139, and 140 are rejected under 35 U.S.C. 102(e) as being anticipated by Nobles et al. (5,944,730). Nobles et al. disclose, at least in figures 17-20, 23, and 25A-28 and in col. 1, line 59 to col. 2, line 27 and col. 5, line 34 to col. 8, line 35; a method for performing an anastomosis on a vessel wall while maintaining blood flow within the vessel, where the method includes forming an opening in the blood vessel (see fig. 25A) and removing a portion of the wall where the opening was formed (see figs. 25D and 25E), inserting an occluding member (151) into the opening, connecting a graft (226) to the vessel at the opening after the step of forming an opening and removing a portion of the wall, piercing the vessel wall with a piercing member (166) extending from a shaft (160), placing a graft over the occluding member prior to anastomosing, where anastomosing comprises fastening walls of the graft and vessel together using fasteners (238), where the occluding member comprises a cannula (160), where the occluding member (151) is radially expandable and has an expandable membrane or flexible sealing member, and where the occluding member forms an umbrella.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobles et al. (5,944,730) in view of Ho et al. (6,514,265). Nobles et al. (5,944,730) discloses the invention substantially as claimed, but do not disclose fastening with self-closing fasteners. Ho et al. teach, at least in figures 2A –3G and in col. 5, line 62 to col. 6, line 13 and col. 8, lines 9-42, fastening the walls of a graft and a vessel together using self-closing fasteners (210). It would have been obvious to one having ordinary skill in the art at the time the invention was made, in view of Ho et al., to modify the method of Nobles et al., so that self-closing fasteners are applied for the fastening of a graft to a vessel. Such fasteners would allow a quick (as compared to the time for fastening with sutures or conventional clips), safe, and effective anastomosis of a graft and a vessel within the narrow confines of a surgical site.

9. Claims 133, 134, 137, and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobles et al. (5,944,730) in view of Marks (5,108,420). Nobles et al. disclose the invention substantially as claimed. Nobles et al. disclose, in col. 12, lines 7-18; an occluding member including wires. However, Nobles et al. do not disclose that the wires have a memory shape and that the occluding member includes a restraint, a sheath, or a restraining sheath extending over a portion of or slidably mounted to the occluding member. Marks teaches in figures 1-3 and col. 3, line 17 to col. 4, line 8; an occluding member including a membrane and wires of memory shape and a restraint, sheath or restraining sheath (19). It would have been obvious to one having ordinary skill in the art at the time the invention was made, in view of Marks, to modify the occluding member so that it includes wires of memory shape and a restraint, sheath, or restraining sheath. Such wires are strong, flexible, biocompatible, and would allow the occluding member to assume a desired shape when it is implanted in a patient's body, while a restraint, sheath, or restraining sheath would allow protection of and positioning of the occluding member as it is inserted into a patient's body and moved to a surgical site.

10. Claim 136 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobles et al. (5,944,730) in view of LeMole (5,893,369). Nobles et al. disclose the invention substantially as claimed, but do not disclose that the expandable membrane of the occluding member is an inflatable member. LeMole teaches, in 12B and 12C and col. 8, lines 3-30; an expandable membrane (302) of an occluding member that is an inflatable member. It would have been obvious to one having ordinary skill in the art at

the time the invention was made, in view of LeMole, to modify the occluding member of Nobles et al., so that it is inflatable member. Such a modification would allow the occluding member to have a narrow profile for insertion into a patient's body, and an inflated profile that allow firm sealing of the occluding member with a vessel wall.

Allowable Subject Matter

11. Claims 76-81 are allowed.
12. The following is an examiner's statement of reasons for allowance: None of the prior art of record, alone or in combination, discloses, a method from performing an anastomosis on a vessel wall, where the method includes, inter alia, inserting an occluding member into an opening cut into a vessel, and anastomosing a graft to the vessel at the opening, where the occluding member includes fasteners with attached needles attached to the occluding member, where the method further includes grasping the needles and pulling them entirely through the vessel wall; and where a cutting tool includes an adapter that retains needles, where the method includes inserting the cutting tool and adapter into the vessel and pulling back the adapter and cutting tool in order to pierce the vessel wall with the needles, and pulling the needles all the way through the vessel.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

13. Claims 69, 70, 72, and 73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record, alone or in combination, discloses a method for performing an anastomosis on a vessel wall while maintaining blood flow within the vessel, where the method includes, inter alia; forming an opening in a wall of the vessel and inserting an occluding member into the opening, where a tissue plug produced by the cutting is removed prior to inserting an occluding member, where inserting the occluding member comprises inserting the occluding member while a cutting tool is still in the opening, where the cutting tool is withdrawn to allow the occluding member to expand against the periphery of the opening, and where the method includes sliding a generally circular centering disk along the piercing member shaft onto the vessel wall prior to cutting and clamping vessel wall tissue between the centering disk and an end portion of the anchoring member.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

15. The rejection of claim 74 under 35 U.S.C. 112, 2nd paragraph, is hereby withdrawn.

Applicant's arguments regarding the rejection based on LaFontaine have been fully considered but they are not fully persuasive. LaFontaine indeed discloses "attaching a graft to the vessel wall adjacent to the cannula while the cannula extends through the vessel wall, where the cannula 56 (which includes a piercing end) is "inserted concurrently" with graft 86 according to col. 7, lines 27-29, such that the graft engages or contacts the vessel wall as claimed. Moreover, the graft is indeed attached to an exterior of the vessel wall adjacent to the first end of the tubular member. That is, the graft contacts and extends from the exterior of the vessel wall at a first vessel wall location. Also, tubular member 56 moves, initially, from exterior to the blood vessel (the patient's body), to an interior passage of the blood vessel (a femoral artery), to a location exterior to the blood vessel (to a graft), and then back to an interior passage.

With respect to arguments regarding the rejection of claims 66, 67, 71, 74, 75, 126, 132, 133, 134, 136, 137, 139, 140, and 141 have been considered but are moot in view of new grounds of rejection.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian W. Woo whose telephone number is (571) 272-4707. The examiner can normally be reached Mon.-Fri., 7:00 AM to 3:00 PM Eastern Time, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Julian W. Woo/
Primary Examiner, Art Unit 3773